



Portland cement type I : Mountain Brand

Mountain brand is a Portland cement type I manufactured in accordance with Thai Industrial Standard 15 vol. 1-2004 with corresponds to ASTM C 150

This brand of cement is general purpose construction work under normal environment condition suitable for all use in large-scale construction projects such as reinforced concrete building, bridges, concrete roads, runways, pre-stress concrete components and other concrete products etc.

Mix proportioning for application

Type of application	Cement	Sand	Stone	Water
Course grain concrete	1 bucket	3 buckets	5 buckets	1 bucket
Regular concrete	1 bucket	2 buckets	4 buckets	1 bucket

Recommendations

- This proportion could be adjusted under the recommendation of civil engineer.
- Harden concrete should be cure after 24 hours casting to induce desired compressive strength

Product specification

Specification for Portland cement type I : Mountain Brand			TIS 15 Vol.1-2004	ASTM C 150	Test Results
STANDARD CHEMICAL REQUIREMENTS					
Magnesium Oxide (MgO)	Max.	%	6.0	6.0	1.80
Sulfur Trioxide (SO ₃)					
When (C ₃ A) is 8% or less	Max.	%	3.0	3.0	2.5
When (C ₃ A) is more than 8%	Max.	%	3.5	3.5	-
Loss on ignition	Max.	%	3.0	3.0	1.00
Insoluble residue	Max.	%	0.75	0.75	0.30
STANDARD PHYSICAL REQUIREMENTS					
Blaine fineness (air permeability test)	Min.	Cm ² /g	2,800	2,800	3,100
Soundness (autoclave expansion)	Max.	%	0.8	0.8	0.03
Time of setting (vicat test)					
Initial set	Min.	Minutes	45	45	100
Final set	Max.	Minutes	375	375	180
Air content of mortar by volume	Max.	%	12	12	8.0
Compressive strength (mortar cube)					
1 day in moist air, 2 days in water	Min.	MPa	12.0	12.0	19.6
1 day in moist air, 6 days in water	Min.	MPa	19.0	19.0	28.4
OPTIONAL PHYSICAL REQUIREMENTS					
False set (final penetration)	Min.	%	50	50	85
Compressive strength (mortar cube)					
1 day in moist air, 27 days in water	Min.	Mpa	28.0	28.0	39.2